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natural disaster.[2] To illustrate, a post-Hurricane Harvey analysis found that in Houston, low- and moderate-income families were more likely to live in homes built in flood-prone areas or areas not protected from flood risk and, consequently, suffered more damage than residents in higher-income neighborhoods.[3]

Low- to moderate-income families also have the most at stake when it comes to protecting their property from natural and manmade hazards, like fire risks. Recent Bankrate studies have reported that only 39 percent of those surveyed could cover an unanticipated $1,000 expense with savings.[4] That's about one-third of the average Federal Emergency Management Agency (FEMA)-verified (not actual) losses post-Hurricane Harvey for LMI renters and one-seventh to one-ninth of the FEMA-verified losses for LMI owners.[5] Following Hurricanes Harvey, Irma and Maria, serious delinquency rates on home mortgages tripled in the Houston and Cape Coral, Florida, and quadrupled in San Juan, Puerto Rico. Serious delinquency rates increased more than 50 percent in Santa Rosa and Chico, California after the Tubbs Fire and Camp Fire.[6]

High energy and water bills also have disproportionate impacts. Middle-income and high-income ratepayers spend 1 to 5 percent of their income on energy bills, whereas low-income customers face energy burdens from 6 to 30 percent or more depending on their state of residence.[7] Researchers have found that increased household expenditures on energy have contributed to a rise in mortgage delinquency.[8]

The consequences of natural disasters, risks to life safety, and high utility costs for people on the poverty line demonstrate why disaster resilience and energy and water efficiency must be part of our solutions to affordable housing challenges.

The RFI notice appropriately recognizes ongoing costs as barriers to housing affordability, noting that "[r]ising housing costs are forcing families to dedicate larger shares of their monthly incomes to housing." But while reducing the share of a family's income that is dedicated to housing is vital, shifting those costs through increased utility bills, insurance premiums, or recovery costs merely reallocates them, and does not improve affordability. Fortunately, we can promote homes that are affordable, resilient, and energy- and water-efficient through the greater adoption and application of up to date model building codes.

Modern model codes promote affordable housing by reducing the risk to buildings of natural and manmade hazards, increased

responder expenses, and insurance costs, and are enjoyed by all building stakeholders – from developers, titleholders, and lenders, to tenants and communities.

annualized loss—in terms of repair cost, collapse probability, and fatalities—by approximately 50 percent.[17] According to the Association of State Floodplain Managers, the insurance savings from meeting current codes' flood mitigation requirements can reduce homeowners' net monthly mortgage and flood insurance costs by at least 5 percent. The principal investigator for the NIBS report found that improvements to model building codes' resilience over the nearly 30-year period studied only increased a home's purchase price by around a half a percentage point in earthquake country or in an area affected by riverine flood.[18] Finally, a study by Headwaters Economics last fall found that in the county studied a new home built to model wildfire-resistant codes could be constructed for roughly the same cost as a typical home.[19]

The cost effectiveness of modern codes is due in no small part to the active participation in the code development process of stakeholders representing development and property management interests. Building owners and managers, home builders, architects, design professionals, building trades, energy advocates, manufacturers, and others representing the housing industry devote considerable time and effort towards ensuring code updates are practical and cost effective.

Our organizations urge the White House Council to ensure that its recommendations complement existing efforts to promote state and local adoption of modern model building codes at HUD, FEMA, the Department of Energy (DOE) and across the federal government.

Recognizing the life safety and mitigation benefits that current building codes provide for communities, HUD has both required applicants for disaster recovery funding commit to adopting resilient codes and made available significant sums for codes' adoption and implementation. For the past seven years, and across multiple allocations, HUD has required Community Development Block Grants for Disaster Recovery (CDBG-DR) applicants demonstrate in their action plans how they will support the adoption of resilient building codes.[20] HUD's first round of CDBG mitigation funding (CDBG-MIT) issued last year states that "through this allocation for mitigation," HUD seeks to "support the adoption" of the "latest edition of the published disaster-resistant building codes and standards (to include wildland urban interface, flood and all hazards, ASCE-24, and ASCE-7 respectively)." As such, "[g]rantees are encouraged to propose an allocation of CDBG-MIT funds for building code development and implementation, land use planning and/or hazard mitigation planning activities that may

HUD has awarded more than $2.3 billion in traditional CDBG formula funding that was used for improved code compliance since 2001.[22] According to HUD, these investments (1) "ensure the health, safety, and protection of the public in the construction and occupancy of buildings" by addressing "structural integrity, fire resistance, lighting, electrical, plumbing, sanitary facilities, ventilation, and seismic design;" (2) "improve the value of the residential units;" and (3) "reduce crime in a neighborhood."[23]

Following several fatalities from carbon monoxide poisoning in HUD-assisted properties, Secretary Carson endorsed bipartisan legislation that would require HUD-assisted properties to adhere to the carbon monoxide poisoning prevention requirements in current model building codes.[24] Per the RFI, promoting up-to-date building code adoption and compliance is clearly consistent with HUD's mission to "support decent, safe and sanitary housing." As HUD's efforts demonstrate, and the RFI acknowledges, some building regulations are "necessary to protect the health and safety of American citizens."

FEMA has taken a similar approach. Based on modern model building codes' implications for disaster mitigation and the Agency's focus on careful stewardship of federal post-disaster recovery expenditures, FEMA's strategic plan stresses: "[d]isaster resilience starts with building codes, because they enhance public safety and property protection."[25] In the Plan's very first objective, FEMA highlighted the importance of the Agency's "advocate[ing] for the adoption and enforcement of modern building and property codes." FEMA has deemed adherence to current model codes to be so important that it will not fund rebuilding of public facilities post-disaster if that construction would otherwise be built to non-current standards.[26] The Agency's position is intended to support the efficient use of federal dollars as "[r]ecipients and sub-recipients using nationally recognized voluntary consensus-based building codes and standards will decrease vulnerability [of] new construction and repaired and retrofitted structures, thus decreasing the need for future Federal disaster recovery grants and other assistance."[27] State and local adoption of up-to-date building codes is a budgetary performance metric for the Agency.[28]

Congress shares FEMA's position. Twice in 2018 Congress passed, and President Trump signed into law, measures that incentivize the adoption and application of modern model building codes through enhanced federal cost shares for post-disaster rebuilding, new grants for states and localities both pre- and post-disaster, and by making pre-disaster mitigation grant applicants more competitive based on their adoption of up-to-date model codes.[29]

The efforts by Congress, FEMA, and HUD are reflected in the Administration's National Mitigation Investment Strategy, issued last summer by the Mitigation Framework Leadership Group (MitFLG)—chaired by FEMA and made up of HUD, 12 other federal agencies and departments as well as state, tribal, and local officials. The Strategy makes several recommendations concerning the use, enforcement, and adoption of building codes: "[a]rchitects, engineers, builders, and regulators should use the latest building codes for the most up-to-date requirements for structural integrity, mechanical integrity, fire prevention, and energy conservation," "trained,

[22] https://www.hudexchange.info/programs/cdbg/cdbg-expenditure-reports/.
[23] HUD, *Use of CDBG Funds for Code Enforcement Activities*, CPD-14-016 (Oct. 2014).
[24] Press Release,

materials

Despite the recommendations made by FEMA and others, as well as the insurance benefits provided, only 16 communities have achieved a top BCEGS score, out of thousands of counties and cities nationwide.[44] Based on an International Code Council analysis, a third of states do not require code official certification and half of states do not require continuing education for code officials. These figures make the case for increased staffing and training investments, as opposed to forcing understaffed and/or undertrained departments to process permits faster and less safely.

Improved code application also generates significant energy efficiency benefits. DOE residential field studies have demonstrated that training is capable of significantly increasing energy savings (the 7 states studied saw the potential for annual energy costs to decrease by an average of 45 percent).[45] An Institute for Market Transformation analysis determined that funding for building energy code

- In response to RFI question #1(a),(d): Were the federal government's support for the adoption and application of model building codes (through efforts at HUD, FEMA, DOE, etc.) undermined, homeowners and residents would face greater risk of harm to occupants and property, higher insurance costs, and higher utility bills. States and local governments would suffer business interruptions, greater damage from natural disasters, delayed or incomplete recovery from natural disasters, increased first responder costs and first responder casualties, and greater foreclosure risk. Encouraging state or local governments to lower building or enforcement standards would make them less competitive for existing grant programs (e.g., FEMA's) and could lead to community-wide increases in insurance premiums.

- In response to RFI question #4(a)(i): The available studies have shown that building codes have no appreciable negative implications for affordable housing. In fact, no peer-reviewed study has found otherwise.

- In response to RFI question #4(b): Building inspections and permitting affect the timeline for construction, but, as described above, are critical toward protecting community safety, ensuring lower insurance rates, and reducing energy bills. Focusing exclusively on permitting timelines misses what many believe to be a key construction cost driver—wo

HUD could support the greater adoption, use, and